UNITED STATES PATENT AND TRADEMARK OFFICE

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ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication app ars on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *03 October 2003*.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-21,23,24 and 26-37* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-21,23,24 and 26-37* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All b)☐ Some * c)☐ None of:
   1. ☐ Certified copies of the priority documents have been received.
   2. ☐ Certified copies of the priority documents have been received in Application No. _____.
   3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application)
   since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.
   37 CFR 1.78.
   a) ☐ The translation of the foreign language provisional application has been received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific
   reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)   4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)   5) ☐ Notice of Informal Patent Application (PTO-152)

3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .   6) ☐ Other: .

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments filed 10/03/2003 have been fully considered but they are not

persuasive. Please see the following reasons and the associated grounds of rejection below.

2.   The applicant argues "Berman (USPN 5,754,831) does not disclose that such parameters

are combined to derive overall respective parameters from which a quality indication is derived"

(page 8, paragraph 2). The argument is directed solely at a newly added limitation in the claim,

it is therefore addressed in the rejection below. The argument is not persuasive because Berman

(USPN 5,754,831) shows the use of multiple different parameters that are combined to create

overall parameters for the network (column 8, lines 3-7; column 9, lines 7-12). The parameters

used are additive and a total is determined for the network model. This reads on the claims as

currently written.

3.   The applicant further argues that Berman (USPN 5,754,831) does not teach parameters

that "constitute a value that is representative of a subjective perceived quality of

communications" (page 9, paragraph 2). The argument is directed solely at a newly added

limitation in the claim, it is therefore addressed in the rejection below. The argument is not

persuasive because the Berman (USPN 5,754,831) reference reads on the limitation.

Specifically, in determining transmission time, a subjective perceived quality of the network is

addressed. An end user is going to see the negative impact of great delays in the system and will

result in a subjective opinion of poor quality.

4.   Finally, the applicant argues that Berman (USPN 5,754,831) teaches neither a packet

jitter parameter nor a packet loss parameter. The argument is directed solely at a newly added

limitation in the claim, it is therefore addressed in the rejection below. The argument is not

persuasive because the Berman (USPN 5,754,831) reference does acknowledge the order of

packets as they arrive and this is the same thing as a packet jitter parameter. The examiner never

purports that the Berman (USPN 5,754,831) reference teaches a packet loss parameter. Please

see the rejection below for the combination that renders the current claims obvious.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6.   Claims 1-3, 5-7, 9-16, 18, 20, 23, 24, 26, 33, and 35 are rejected under 35 U.S.C. 102(b)

as being anticipated by Berman (USPN 5,754,831).

7.   Regarding claim 1, Berman (USPN 5,754,831) teaches a system for determining

performance of a communications system with means for:

      a. Storing representations of plural components of the communications system,

         the components including a first packet-based network and at least one

         network device (column 6, lines 35-45, 51-60; column 2, lines 52-56; figure 3;

         column 6, line 42).

      b. Assigning performance parameters for each of the components, the

         performance parameters comprising at least a first performance parameter and

         a second performance parameter (column 6, lines 57-60; column 8, lines 44-

         46).

    c. Combining the first performance parameters of respective components to

        derive overall first performance parameters (column 8, lines 3-7).

    d. Combining the second performance parameters of respective components to

        derive an overall second performance parameter (column 9, lines 7-12).

    e. Deriving a quality indication of the communications system based at least on

        the overall first and second performance parameters (column 7, lines 36-57;

        column 2, lines 46-48; column 9, lines 7-20).

8.   Regarding claim 2, Berman (USPN 5,754,831) teaches all the limitations as applied to

claim 1. He further teaches means wherein the components include a second packet-based

network, the method further comprising assigning performance parameters for the second

packet-based network (column 6, lines 39-43).

9.   Regarding claim 3, Berman (USPN 5,754,831) teaches all the limitations as applied to

claim 1. He further teaches means wherein assigning the performance parameters includes

assigning a packet delay parameter (column 7, lines 35-57; column 8, line 66 – column 9, line 1).

10.   Regarding claim 5, Berman (USPN 5,754,831) teaches all the limitations as applied to

claim 1. He further teaches means wherein assigning the performance parameters includes

assigning a packet jitter parameter (column 7, lines 64-65). Note that it is known whether or not

packets arrive in order.

11.   Regarding claim 6, Berman (USPN 5,754,831) teaches all the limitations as applied to

claim 1. He further teaches means wherein storing the representations includes storing models of

the plural components, the models capable of being linked to create a representation of the

communications system (column 6, lines 35-45, 51-61; column 7, lines 2-5).

12.   Regarding claim 7, Berman (USPN 5,754,831) teaches all the limitations as applied to

claim 6. He further teaches means for providing a graphical user interface in which the models

may be manipulated to create the representation of the communications system (column 7, lines

2-5; column 5, lines 57-64).

13.   Regarding claim 9, Berman (USPN 5,754,831) teaches all the limitations as applied to

claim 1. He further teaches means for combining the representations of the plural components to

create the communications system (column 6, lines 35-45; 51-61).

14.   Regarding claim 10, Berman (USPN 5,754,831) teaches a system for determining

performance of a communications system comprising:

      a. A storage device containing representations of plural components of the

communications system, the plural components including a packet-based

network and at least one network device, each of the components being

assigned one or more performance parameters (column 6, lines 35-45, 51-60;

column 2, lines 52-56; figure 3; column 6, line 42; column 6, lines 57-60).

      b. A controller to calculate a predicted quality of the communications system

based on the one or more performance parameters, wherein the predicted

quality comprises a value that is representative of a subjective perceived

quality of communications in the system by the user (column 7, lines 36-57;

column 2, lines 46-48; column 9, lines 7-20). Note that transmission time as

viewed by the end user is a subjective measurement of communication

quality.

15.   Regarding claim 11, Berman (USPN 5,754,831) teaches all the limitations as applied to claim 10. He further teaches means wherein the one or more performance parameters include a packet delay (column 7, lines 35-57; column 8, line 66 – column 9, line 1).

16.   Regarding claim 12, Berman (USPN 5,754,831) teaches all the limitations as applied to claim 11. He further teaches means wherein the packet delay of each network element is treated as an independent variable (column 7, lines 35-57; column 8, line 66 – column 9, line 1; column 6, lines 51-60). Note that packet delay can be set by the user for each element.

17.   Regarding claim 13, Berman (USPN 5,754,831) teaches all the limitations as applied to claim 12. He further teaches means wherein the controller calculates an overall packet delay of the communications system by summing the packet delays of the plural components (column 7, lines 36-57; column 8, lines 3-5).

18.   Regarding claim 14, Berman (USPN 5,754,831) teaches all the limitations as applied to claim 10. He further teaches means wherein a first performance parameter associated with each network component is treated as an independent variable (column 6, lines 51-61).

19.   Regarding claim 15, Berman (USPN 5,754,831) teaches all the limitations as applied to claim 14. He further teaches means wherein a value of the overall first performance parameter is derived by combining the first performance parameters of the plural components (column 7, lines 36-57; column 8, lines 3-5). This would be true for any additive parameter.

20.   Regarding claim 16, Berman (USPN 5,754,831) teaches all the limitations as applied to claim 10. He further teaches means wherein the representation of the packet based network includes a representation of a collection of links and routers (column 6, lines 35-45).

21.   Regarding claim 18, Berman (USPN 5,754,831) teaches all the limitations as applied to

claim 10. He further teaches means wherein the packet-based network includes a public

network, and wherein the storage device further contains a representation of a local network

(column 6, lines 35-45).

22.   Regarding claim 20, Berman (USPN 5,754,831) teaches a system for modeling

performance of a communications system with means to:

a.   Store models of plural components of the communications system, the plural

components including a packet-based network and at least one network

device, the stored models containing at least first performance parameters and

second performance parameters (column 6, lines 35-45, 51-60; column 2,

lines 52-56; figure 3; column 6, line 42; column 8, lines 44-46).

b.   Combine the models to represent the communications system (column 6, lines

35-45, 51-60; column 2, lines 52-56; figure 3; column 6, line 42).

c.   Combine the first performance parameters of respective components to derive

an overall first performance parameter (column 8, lines 3-7).

d.   Combine the second performance parameters of respective components to

derive an overall second performance parameter (column 9, lines 7-12).

e.   Determine a quality level of the communications system using at least the

overall first performance parameter and overall second performance parameter

(column 7, lines 36-57; column 2, lines 46-48; column 9, lines 7-20).

23.   Regarding claim 23, Berman (USPN 5,754,831) teaches all the limitations as applied to

claim 20. He further teaches means wherein the performance parameters are associated with

communications of packets through the communications system (column 6, lines 57-60; column 7, lines 36-57).

24.   Regarding claim 24, Berman (USPN 5,754,831) teaches all the limitations as applied to claim 23. He further teaches means wherein the performance parameters include at least one of a packet delay, packet loss, and packet jitter (column 7, lines 35-57; column 8, line 66 – column 9, line 1).

25.   Regarding claim 26, Berman (USPN 5,754,831) teaches all the limitations as applied to claim 20. He further teaches means wherein the performance parameters include at least one of a packet delay, packet jitter, and packet loss (column 7, lines 35-57; column 8, line 66 – column 9, line 1).

26.   Regarding claim 33, Berman (USPN 5,754,831) teaches all the limitations as applied to claim 1. He further teaches means wherein deriving the quality indication comprises deriving a value that is representative of a subjective perceived quality of communications in the communications system by a user (column 7, lines 36-57; column 2, lines 46-48; column 9, lines 7-20). Note that transmission time as viewed by the end user is a subjective measurement of communication quality.

27.   Regarding claim 35, Berman (USPN 5,754,831) teaches all the limitations as applied to claim 10. He further teaches a controller to combine the first performance parameters of respective components to derive an overall first performance parameter, and the controller to combine the second performance parameters of respective components to derive an overall second performance parameter, the controller to calculate the predicted quality based on the overall first performance parameter and the overall second performance parameter (column 6,

lines 57-60; column 8, lines 44-46; column 8, lines 3-7; column 7, lines 36-57; column 2, lines

46-48; column 9, lines 7-20).

Claim Rejections - 35 USC § 103

28.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

29.   Claims 8, 17, 19, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Berman (USPN 5,754,831).

30.   Regarding claims 8 and 21, although the system disclosed by Berman (USPN 5,754,831)

(as applied to claims 1 and 20, respectively) shows substantial features of the claimed invention,

it fails to disclose means wherein deriving the quality indication includes calculating an E-model

quality rating value.

Nonetheless, these features are well known in the art and would have been an obvious

modification of the system disclosed by Berman (USPN 5,754,831). The E-model is a standard

generated and maintained by the International Telecommunications Union.

A person having ordinary skill in the art would have readily recognized the desirability

and advantages of modifying Berman (USPN 5,754,831) by employing the E-model quality

rating value to signify the quality of network performance. Any rating scale could be used that

takes into account the performance parameters chosen. This benefits the system by giving a

normalized value that can be compared among vastly different networks.

31.   Regarding claim 17, although the system disclosed by Berman (USPN 5,754,831) (as

applied to claim 10) shows substantial features of the claimed invention, it fails to disclose

means wherein the representation of the packet based network includes a representation of an

Internet Protocol network.

        Nonetheless, these features are well known in the art and would have been an obvious

modification of the system disclosed by Berman (USPN 5,754,831).

        A person having ordinary skill in the art would have readily recognized the desirability

and advantages of modifying Berman (USPN 5,754,831) by employing the representation of an

IP based network. IP networks are very common in current usage and information will be

flowing from LANs to the Internet. This benefits that system by giving a more flexible model

and a more realistic representation.

32.   Regarding claim 19, although the system disclosed by Berman (USPN 5,754,831) (as

applied to claim 10) shows substantial features of the claimed invention, it fails to disclose

means wherein the representation of the packet based network includes a representation of circuit

switched device.

        Nonetheless, these features are well known in the art and would have been an obvious

modification of the system disclosed by Berman (USPN 5,754,831).

        A person having ordinary skill in the art would have readily recognized the desirability

and advantages of modifying Berman (USPN 5,754,831) by employing the representation of a

circuit switched device. Hybrid networks are very common in current usage and information

will be flowing from LANs to circuit switched networks. This benefits that system by giving a

more flexible model and a more realistic representation.

33.   Claims 4, 27-29, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Berman (USPN 5,754,831) in view of Cain et al. (USPN 6,028,846).

34.   Regarding claim 4, although the system disclosed by Berman (USPN 5,754,831) (as

applied to claim 1) shows substantial features of the claimed invention, it fails to disclose means

wherein assigning one or more performance parameters includes assigning a packet loss

parameter.

Nonetheless, these features are well known in the art and would have been an obvious

modification of the system disclosed by Berman (USPN 5,754,831), as evidenced by Cain et al.

(USPN 6,028,846).

In an analogous art, Cain et al. (USPN 6,028,846) discloses a system for the simulation of

network performance wherein assigning one or more performance parameters includes assigning

a packet loss parameter (column 4, lines 1-5, 46-57).

Given the teaching of Cain et al. (USPN 6,028,846), a person having ordinary skill in the

art would have readily recognized the desirability and advantages of modifying Berman (USPN

5,754,831) by employing the use of a packet loss parameter. This benefits the system because

packet loss is a common problem and knowing the likelihood of loss, appropriate recovery

means can be implemented.

35.   Regarding claim 27, Berman (USPN 5,754,831) teaches a system for predicting

performance of a communications system with means to:

      a.   Assign performance parameters to each of plural components in the

         communications system, the plural components including a packet-based

         network, the performance parameters comprising packet jitter and packet

> delay (column 6, lines 35-45, 51-60; column 2, lines 52-56; figure 3; column
>
> 6, line 42; column 7, lines 35-57; column 8, line 66 – column 9, line 1).
>
> b. Derive a quality indication based on the packet jitters and packet delays of the
>
> plural components of the plural components (column 7, lines 36-57; column 2,
>
> lines 46-48).

Although the system disclosed by Berman (USPN 5,754,831) shows substantial features

of the claimed invention, it fails to disclose specifically means wherein one of the performance

parameters is packet loss.

Nonetheless, these features are well known in the art and would have been an obvious

modification of the system disclosed by Berman (USPN 5,754,831), as evidenced by Cain et al.

(USPN 6,028,846).

In an analogous art, Cain et al. (USPN 6,028,846) discloses a system for the simulation of

network performance wherein one of the performance parameters is packet loss (column 4, lines

1-5, 46-57).

Given the teaching of Cain et al. (USPN 6,028,846), a person having ordinary skill in the

art would have readily recognized the desirability and advantages of modifying Berman (USPN

5,754,831) by employing the use of a packet loss parameter. This benefits the system because

packet loss is a common problem and knowing the likelihood of loss, appropriate recovery

means can be implemented.

36.   Regarding claim 28, Berman (USPN 5,754,831) teaches all the limitations as applied to

claim 1. He further teaches means for combining packet delays of respective components to

derive an overall packet delay (column 8, lines 3-7).

Although the system disclosed by Berman (USPN 5,754,831) shows substantial features

of the claimed invention, it fails to disclose specifically means wherein packet loss is combined

to derive an overall packet loss.

Nonetheless, these features are well known in the art and would have been an obvious

modification of the system disclosed by Berman (USPN 5,754,831), as evidenced by Cain et al.

(USPN 6,028,846).

In an analogous art, Cain et al. (USPN 6,028,846) discloses a system for the simulation of

network performance wherein packet loss is combined to derive an overall packet loss (column

4, lines 1-5, 46-57).

Given the teaching of Cain et al. (USPN 6,028,846), a person having ordinary skill in the

art would have readily recognized the desirability and advantages of modifying Berman (USPN

5,754,831) by employing the use of a packet loss parameter and overall packet loss. This

benefits the system because packet loss is a common problem and knowing the likelihood of

loss, appropriate recovery means can be implemented.

37.   Regarding claim 29, Berman (USPN 5,754,831) teaches all the limitations as applied to

claim 28. He further teaches means wherein the performance parameters further comprise packet

jitter, the method further comprising combining the packet jitters of respective components to

derive an overall packet jitter, wherein deriving the quality indication is further based on the

overall packet jitter (column 7, lines 64-65). Note that it is known whether or not packets arrive

in order.

38.   Regarding claim 31, although the system disclosed by Berman (USPN 5,754,831) (as

applied to claim 1) shows substantial features of the claimed invention, it fails to disclose

specifically :

> a. Assigning at least one of a signal loss parameter, echo parameter, and noise
>
>   parameter to at least another one of the system components.
>
> b. Wherein deriving the quality indication is further based on the at least one of
>
>   the signal loss parameter, echo parameter and noise parameter.

Nonetheless, these features are well known in the art and it would have been an obvious

modification of the system disclosed by Berman (USPN 5,754,831), as evidenced by Cain et al.

(USPN 6,028,846).

In an analogous art, Cain et al. (USPN 6,028,846) discloses a system for the simulation of

network performance with means for:

> a. Assigning at least one of a signal loss parameter, echo parameter, and noise
>
>   parameter to at least another one of the system components (column 4, lines 1-
>
>   5, 46-57).
>
> b. Wherein deriving the quality indication is further based on the at least one of
>
>   the signal loss parameter, echo parameter and noise parameter (column 4,
>
>   lines 1-5, 46-57).

Given the teaching of Cain et al. (USPN 6,028,846), a person having ordinary skill in the

art would have readily recognized the desirability and advantages of modifying Berman (USPN

5,754,831) by employing the use of a signal loss parameter and overall signal loss. This benefits

the system because signal loss is a common problem and knowing the likelihood of loss,

appropriate recovery means can be implemented.

39.   Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Berman (USPN

5,754,831) in view of Geshwind (USPN 6,507,872).

40.   Regarding claim 30, although the system disclosed by Berman (USPN 5,754,831) (as

applied to claim 1) shows substantial features of the claimed invention, it fails to disclose:

> a. Assigning an audio CODEC type parameter to at least one of the components.
>
> b. Wherein deriving the quality indication is further based on the audio CODEC
>
> type parameter.

Nonetheless, these features are well known in the art and it would have been an obvious

modification of the system disclosed by Berman (USPN 5,754,831), as evidenced by Geshwind

(USPN 6,507,872).

In an analogous art, Geshwind (USPN 6,507,872) discloses a system for predicting

network performance with means for:

> a. Assigning an audio CODEC type parameter to at least one of the components
>
> (abstract; column 16, lines 62-67).
>
> b. Wherein deriving the quality indication is further based on the audio CODEC
>
> type parameter (abstract; column 16, lines 62-67).

Given the teaching of Geshwind (USPN 6,507,872), a person having ordinary skill in the

art would have readily recognized the desirability and advantages of modifying Berman (USPN

5,754,831) by employing the use of an audio CODEC type parameter. This benefits the system

because the end user will notice degradations in service to audio and video type feeds more

quickly than other data types. Modeling the performance of these data types will allow for prediction of the delays users will see.

41.   Claims 32, 34, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berman (USPN 5,754,831) in view of Thomas et al. (USPN 6,665,271).

42.   Regarding claims 32 and 36, although the system disclosed by Berman (USPN 5,754,831) (as applied to claims 1 and 20, respectively) shows substantial features of the claimed invention, it fails to disclose specifically means wherein deriving the quality indication comprises deriving a mean opinion score (MOS).

Nonetheless, these features are well known in the art and it would have been an obvious modification of the system disclosed by Berman (USPN 5,754,831), as evidenced by Thomas et al. (USPN 6,665,271).

In an analogous art, Thomas et al. (USPN 6,665,271) discloses a system for predicting network performance wherein deriving the quality indication comprises deriving a mean opinion score (MOS) (column 11, lines 62-67).

Given the teaching of Thomas et al. (USPN 6,665,271), a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Berman (USPN 5,754,831) by employing the use of MOS to determine subjective quality. This benefits the system by allowing users to determine what real breakdowns in quality are and when they occur.

43.   Regarding claim 34, although the system disclosed by Berman (USPN 5,754,831) (as applied to claim 10) shows substantial features of the claimed invention, it fails to disclose specifically means wherein the value comprises at least one of an E-model quality rating, mean

opinion score (MOS), a percentage of users that view a connection as good or better, percentage

of users that view a connection as poor or worse, and percentage of connections that users may

terminate early due to quality problems.

Nonetheless, these features are well known in the art and it would have been an obvious

modification of the system disclosed by Berman (USPN 5,754,831), as evidenced by Thomas et

al. (USPN 6,665,271).

In an analogous art, Thomas et al. (USPN 6,665,271) discloses a system for predicting

network performance wherein the value comprises at least one of an E-model quality rating,

mean opinion score (MOS), a percentage of users that view a connection as good or better,

percentage of users that view a connection as poor or worse, and percentage of connections that

users may terminate early due to quality problems (column 11, lines 62-67).

Given the teaching of Thomas et al. (USPN 6,665,271), a person having ordinary skill in

the art would have readily recognized the desirability and advantages of modifying Berman

(USPN 5,754,831) by employing the use of MOS to determine subjective quality. This benefits

the system by allowing users to determine what real breakdowns in quality are and when they

occur.

44.   Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Berman (USPN

5,754,831) and Cain et al. (USPN 6,028,846) as applied to claim 27 above, and further in view of

Thomas et al. (USPN 6,665,271).

45.   Regarding claim 37, although the system disclosed by Berman (USPN 5,754,831) and

Cain et al. (USPN 6,028,846) (as applied to claim 27) shows substantial features of the claimed

invention, it fails to disclose specifically means wherein deriving the quality indication

comprises deriving at least one of an E-model rating and a mean opinion score.

Nonetheless, these features are well known in the art and it would have been an obvious

modification of the system disclosed by Berman (USPN 5,754,831), as evidenced by Thomas et

al. (USPN 6,665,271).

In an analogous art, Thomas et al. (USPN 6,665,271) discloses a system for predicting

network performance wherein deriving the quality indication comprises deriving at least one of

an E-model rating and a mean opinion score (column 11, lines 62-67).

Given the teaching of Thomas et al. (USPN 6,665,271), a person having ordinary skill in

the art would have readily recognized the desirability and advantages of modifying Berman

(USPN 5,754,831) by employing the use of MOS to determine subjective quality. This benefits

the system by allowing users to determine what real breakdowns in quality are and when they

occur.

Conclusion

46.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Parton whose telephone number is (703)306-0543. The examiner can normally be reached on M-F 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (703)305-4792. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

Kevin Parton
Examiner
Art Unit 2153

ksp

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